

=> d his

(FILE 'HOME' ENTERED AT 09:18:15 ON 01 OCT 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,  
BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,  
CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPUS, DDFB,  
DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 09:19:19 ON  
01 OCT 2003

SEA (FUSION PROTEIN) OR (HYBRID PROTEIN) OR (CHIMER? PROTEIN)

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387 FILE ADISCTI  
141 FILE ADISINSIGHT  
67 FILE ADISNEWS  
1743 FILE AGRICOLA  
126 FILE ANABSTR  
266 FILE AQUASCI  
669 FILE BIOCOPUS  
512 FILE BIOCOMMERCE  
27698 FILE BIOSIS  
11711 FILE BIOTECHABS  
11711 FILE BIOTECHDS  
25210 FILE BIOTECHNO  
3341 FILE CABA  
21573 FILE CANCERLIT  
38591 FILE CAPLUS  
1252 FILE CEABA-VTB  
29 FILE CEN  
379 FILE CIN  
293 FILE CONFSCI  
62 FILE CROPUS  
1 FILE DDFB  
1269 FILE DDFU  
137302 FILE DGENE  
1 FILE DRUGB  
263 FILE DRUGNL  
1694 FILE DRUGU  
170 FILE DRUGUPDATES  
258 FILE EMBAL  
25751 FILE EMBASE  
15041 FILE ESBIOBASE  
1774 FILE FEDRIP  
50 FILE FROSTI  
381 FILE FSTA  
7997 FILE GENBANK  
9 FILE HEALSAFE  
5348 FILE IFIPAT  
1852 FILE JICST-EPLUS  
8 FILE KOSMET  
14293 FILE LIFESCI  
4 FILE MEDICONF  
61165 FILE MEDLINE  
3 FILE NIOSHTIC  
178 FILE NTIS  
29 FILE OCEAN  
7212 FILE PASCAL  
2222 FILE PCTGEN  
118 FILE PHAR  
51 FILE PHARMAML  
3 FILE PHIC  
238 FILE PHIN  
1402 FILE PROMT  
3 FILE RDISCLOSURE

23390 FILE SCISEARCH  
1 FILE SYNTHLINE  
22060 FILE TOXCENTER  
28370 FILE USPATFULL  
740 FILE USPAT2  
1 FILE VETB  
203 FILE VETU  
6023 FILE WPIDS  
6023 FILE WPINDEX

L1 QUE (FUSION PROTEIN) OR (HYBRID PROTEIN) OR (CHIMER? PROTEIN)

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FILE 'MEDLINE, CAPLUS, USPATFULL, BIOSIS, EMBASE, BIOTECHNO, SCISEARCH,  
TOXCENTER, CANCERLIT, ESBIOSBASE, LIFESCI, BIOTECHDS' ENTERED AT 09:23:20  
ON 01 OCT 2003

L2 1095 S L1 AND GLYCOSYLTRANSFERASE  
L3 688 S L1 AND SIALYLTRANSFERASE  
L4 217 S L3 AND SYNTHETASE  
L5 206 DUP REM L4 (11 DUPLICATES REMOVED)

=> log Y

L5 ANSWER 202 OF 206 MEDLINE on STN DUPLICATE 3  
ACCESSION NUMBER: 1998368159 MEDLINE  
DOCUMENT NUMBER: 98368159 PubMed ID: 9702777  
TITLE: The synthesis of sialylated oligosaccharides using a  
CMP-Neu5Ac **synthetase/sialyltransferase**  
fusion.  
COMMENT: Comment in: Nat Biotechnol. 1998 Aug;16(8):720-1  
AUTHOR: Gilbert M; Bayer R; Cunningham A M; DeFrees S; Gao Y;  
Watson D C; Young N M; Wakarchuk W W  
CORPORATE SOURCE: Institute for Biological Sciences, National Research  
Council of Canada, Ottawa, Ontario, Canada.  
SOURCE: NATURE BIOTECHNOLOGY, (1998 Aug) 16 (8) 769-72.  
Journal code: 9604648. ISSN: 1087-0156.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199810  
ENTRY DATE: Entered STN: 19981029  
Last Updated on STN: 19981029  
Entered Medline: 19981022  
AB Large-scale enzymatic synthesis of oligosaccharides, which contain terminal N-acetyl-neuraminic acid residues requires large amounts of the **sialyltransferase** and the corresponding sugar-nucleotide **synthetase**, which is required for the synthesis of the sugar-nucleotide donor, CMP-Neu5Ac. Using genes cloned from *Neisseria meningitidis*, we constructed a **fusion protein** that has both CMP-Neu5Ac **synthetase** and alpha-2,3-**sialyltransferase** activities. The **fusion protein** was produced in high yields (over 1200 U/L, measured using an alpha-2,3-**sialyltransferase** assay) in *Escherichia coli* and functionally pure enzyme could be obtained using a simple protocol. In small-scale enzymatic syntheses, the **fusion protein** could sialylate various oligosaccharide acceptors (branched and linear) with N-acetyl-neuraminic acid as well as N-glycolyl- and N-propionyl-neuraminic acid in high conversion yield. The **fusion protein** was also used to produce alpha-2,3-sialyllactose at the 100 g scale using a sugar nucleotide cycle reaction, starting from lactose, sialic acid, phosphoenolpyruvate, and catalytic amounts of ATP and CMP.

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1. Document ID: US 20030180928 A1

L3: Entry 1 of 4

File: PGPB

Sep 25, 2003

PGPUB-DOCUMENT-NUMBER: 20030180928

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030180928 A1

TITLE: Fusion protein comprising a UDP-Galnac 4' epimerase and a galnac transferase

PUBLICATION-DATE: September 25, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gilbert, Michel	Hull		CA	
Young, N. Martin	Gloucester		CA	
Wakarchuk, Warren W.	Gloucester		CA	

US-CL-CURRENT: [435/193](#); [435/320.1](#), [435/325](#), [435/6](#), [435/69.7](#), [536/23.2](#)[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

2. Document ID: US 20020034805 A1

L3: Entry 2 of 4

File: PGPB

Mar 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020034805

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020034805 A1

TITLE: FUSION PROTEINS FOR USE IN ENZYMATIC SYNTHESIS OF OLIGOSACCHARIDES

PUBLICATION-DATE: March 21, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
GILBERT, MICHEL	HULL		CA	
YOUNG, N. MARTIN	GLoucester		CA	
WAKARCHUK, WARREN W.	GLoucester		CA	

US-CL-CURRENT: [435/193](#); [435/183](#), [435/200](#), [435/320.1](#), [435/325](#), [536/23.2](#)[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

3. Document ID: US 20020009730 A1

L3: Entry 3 of 4

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020009730  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020009730 A1

TITLE: Human stress array

PUBLICATION-DATE: January 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Chenchik, Alex	Palo Alto	CA	US	
Lukashev, Matvey E.	Newton	MA	US	

US-CL-CURRENT: 435/6; 536/24.3

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KMC](#) | [Draw. Desc](#) | [Image](#)

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4. Document ID: US 20020001831 A1

L3: Entry 4 of 4

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020001831  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020001831 A1

TITLE: Low cost manufacture of oligosaccharides

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Defrees, Shawn	North Wales	PA	US	
Johnson, Karl	Willow Grove	PA	US	

US-CL-CURRENT: 435/101; 435/84, 536/53

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [KMC](#) | [Draw. Desc](#) | [Image](#)

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L3

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**Search History****DATE:** Wednesday, October 01, 2003 [Printable Copy](#) [Create Case](#)**Set Name** Query**Hit Count** Set Name  
result set*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

<u>L3</u>	L2 same synthetase	4	<u>L3</u>
<u>L2</u>	L1 same sialyltransferase	31	<u>L2</u>
<u>L1</u>	fusion protein	33304	<u>L1</u>

END OF SEARCH HISTORY